

Borough of Brighton.

ANNUAL REPORT
ON THE
HEALTH,
SANITARY CONDITION, &c.,
OF THE
BOROUGH OF BRIGHTON,
FOR THE YEAR 1894.

BY
ARTHUR NEWSHOLME, M.D.,
Medical Officer of Health.

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TOWN HALL,

April 15th, 1895.

To the Sanitary Committee of the Brighton Town Council.

GENTLEMEN,—

I beg to present herewith my annual report for the year 1894. It gives full particulars of the vital statistics, the sanitary work, and the administration of the Sanatorium during the past year

While this report was in preparation, the Committee sustained a serious loss by the decease of its Chairman, Mr. Councillor Arthur Loader. For many years he had ungrudgingly devoted a large share of his time and skill to the public service of the town; and his loss will be felt more particularly in connection with its sanitary administration, in which he took an active and practical interest.

I am, Gentlemen,

Your obedient Servant,

ARTHUR NEWSHOLME,

Medical Officer of Health.

BOROUGH OF BRIGHTON.

Sanitary Committee.

The MAYOR (MR. ALDERMAN BOTTING J.P.

MR. ALDERMAN EWART, M.D., J.P.

MR. COUNCILLOR BLAKER,

” ” BROWN,

” ” CARTER,

” ” DEWÉ,

” ” EVANS,

” ” HOLLIS,

” ” HOLLOWAY,

” ” LOADER (Chairman),

” ” McCLEAN,

” ” TITCOMBE,

” ” WHITE.

Town Clerk.

MR. FRANCIS J. TILLSTONE.

Staff of the Health Department.

JAMES SKINNER (Certif. San. Institute), Chief Inspector of Nuisances

JOHN NORRISH ” ” Assistant ” ”

JAMES A. CUCKNEY ” ” ” ” ” ”

ERNEST E. MILLS ” ” ” ” ” ”

THOMAS S. POPE ” ” ” ” ” ”

WILLIAM RALPH ” ” ” ” ” ”

WILLIAM BROWN ” ” ” ” ” ”

ALFRED FLINT ” ” ” ” ” ”

FREDERICK BRAYBON ” ” ” ” ” ”

ALICE RAMSDEN ” ” ” ” ” ”

FREDERICK F. FLINN, Senior Clerk.

BENJAMIN PACKHAM, Junior Clerk.

Medical Officer of Health.

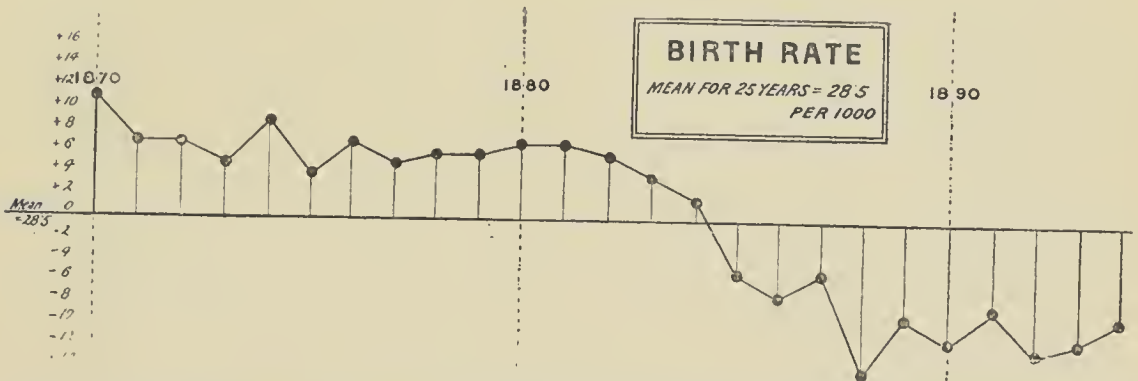
ARTHUR NEWSHOLME, M.D. Lond.

A.—VITAL STATISTICS.

Births.

The total number of births registered in the Municipal Borough during the 52 weeks ending Dec. 29th, 1894, was 3,055, 1,542 of boys and 1,513 of girls. This is equivalent to a birth-rate of 25·8 per 1,000 inhabitants, as compared with 25·3 in the previous year. The birth-rate of the 33 great towns averaged 30·7 per 1,000, that of London being 30·1. Brighton had the lowest birth-rate among the great towns with the exception of Huddersfield (20·2), Halifax (23·1) and Croydon (25·0), the highest being Liverpool with a birth-rate of 35·4 per 1,000.

DIAGRAM 1



NOTE.—This diagram is to be read as follows: The mean birth-rate for the whole 25 years was 28·5 per 1,000 inhabitants. In 1870 the birth-rate was 11 per cent. in excess of the mean; in 1894 it was 9 per cent. below the mean; and so on. The subsequent diagrams are to be read in a similar manner.

TABLE I.—Total and Illegitimate Births during the last 12 years.

Years.	Total Births.	Illegitimate Births.	Total Birth-Rate.	Illegitimate Birth-Rate.	Illegitimate Births per cent. of Total Births.
			Per 1,000 Inhabitants.		
1883	3236	265	29·6	2·38	7·9
1884	3248	236	29·1	2·09	7·0
1885	2981	195	26·9	1·70	6·5
1886	2957	197	26·5	1·69	6·6
1887	3038	190	27·0	1·61	6·2
1888	2791	204	24·6	1·70	7·3
1889	2964	214	26·0	1·75	7·2
1890	2915	191	25·4	1·54	6·6
1891	3031	215	26·22	1·86	7·1
1892	2958	222	25·10	1·88	7·5
1893	2981	197	25·30	1·67	6·6
1894	3055	260	25·80	2·19	8·5

Of the births, 260 were of illegitimate children, forming 8·5 per cent. of the total births, as compared with 6·6 per cent. in the previous year. 63 births occurred in the Workhouse, of which 53 were of illegitimate children.

The proportion of illegitimate births to population and to total births was higher during last year than it had been since 1883.

Age Constitution of the Population.

One of the most remarkable features of the vital statistics of recent years has been the decline in the birth-rate. Thus in Brighton, it declined to the extent of 14 per cent. between 1883 and 1893, while in the same eleven years there was a decline of 9 per cent. for the whole of England and Wales. This decline in the birth-rate must evidently in time have a marked effect on the death-rate of the community. For the time its effect is rather in the direction of lowering it. This is due to the fact that the death-rate among children living at ages under 5 years is higher than that at any subsequent period of life up to sixty-five years of life: while at ages between 15 and 55 the death-rate is lower than the combined death-rate for persons at all ages. It is evident that if the lowered birth-rate of the last ten years be continued for another forty or fifty years, we shall reach a stage at which its effect will be to increase the proportion of persons living at ages over 55, and so to raise the general death-rate. This statement does not allow for the disturbing effect of migration. It will certainly be true for England as a whole; its local effect is anticipated in the case of Brighton by the fact that a large number of aged persons settle here and thus prolong their lives to an appreciable extent. The extent to which this occurs may be gathered from the fact that at the date of the 1891 census, for every 1,000 persons living at all ages in the respective towns, there were at ages over 55, 121 in Brighton, 101 in Croydon, 93 in Huddersfield and 85 in Derby. At the opposite extreme of life, under 5 years of age, when the death-rate is also higher than that for all ages combined, there were in Huddersfield 98, in Brighton 103, in Croydon 114, and in Derby 119 out of every 1,000 persons living at all ages. The composite result of these variations in the age constitution of different populations can be best stated by means of the "factors for correction for sex and age distribution" which have been calculated by the Registrar-General. The following table gives the resulting *corrected death-rates* and the recorded death-rates, the towns being given in the order of their corrected death-rates:—

TABLE II.—*Recorded and Corrected Death-Rates of the 33 Great Towns for the year 1894.*

	Recorded Death-Rate.	Death-Rate Corrected for Age and Sex Variation.
Liverpool	23·8	26·4
Salford	21·0	23·5
Manchester	20·4	23·0
Preston	20·8	22·8
Wolverhampton	20·7	21·7
Sunderland	20·8	21·6
Burnley	18·7	21·5
Bolton	18·8	21·2
Oldham	18·6	21·2
Birmingham	18·6	20·4
Blackburn	17·9	20·0
Newcastle-on-Tyne	18·3	19·9
Birkenhead	18·1	19·8
Leeds	17·9	19·8
Sheffield	17·8	19·7
Bradford	17·0	19·5
London	17·8	19 0
Gateshead	17·7	18·9
Swansea	17·0	18·5
Huddersfield	15·8	18·4
Nottingham	17·2	18·4
Halifax	16·5	18·3
Hull	17·4	18·2
Cardiff	16·2	18·1
Bristol	17·3	18 1
Norwich	18·7	17·9
Plymouth	18·3	17·9
West Ham	16·2	17·4
Brighton	16·4	16·6
Derby	15·0	16·5
Leicester	14·7	15·9
Portsmouth	15·2	15·5
Croydon	13·2	13·8
Average for the thirty-three great towns ...	18·1	19·5

Deaths.

During the year 1894, 1,943 deaths were registered as belonging to Brighton, 938 of males and 1,005 of females. This shows an annual death-rate of 16·4 per 1,000 inhabitants, as compared with 18·4 in 1893 and 21·8 in 1882.

TABLE III.—*Comparison of Births and Deaths in Successive Years.*

Years.	Births.	Birth-Rate per 1,000 inhabitants.	Deaths from all Causes.	Death-Rate per 1,000 inhabitants.	Death-Rate from the seven chief Infectious Diseases per 1,000 inhabitants.	Death-Rate under one year of age per 1,000 births.
1882	3284	30·2	2372	21·8	4·40	187
1883	3236	29·6	2131	19·5	2·50	160
1884	3248	29·1	2064	18·8	1·77	162
1885	2981	26·9	1952	17·6	1·43	132
1886	2957	26·5	1986	17·8	1·97	160
1887	3038	27·0	1988	17·7	2·33	148
1888	2791	24·6	1928	17·0	1·42	149
1889	2964	26·0	1833	16·1	1·60	131
1890	2915	25·4	2232	19·1	2·57	164
1891	3031	26·2	2097	18·2	1·06	137
1892	2958	25·1	2232	18·9	2·09	151
1893	2981	25·3	2165	18·4	1·84	169
1894	3055	25·8	1943	16·4	1·20	137

The death-rate was 18·8 in the first quarter of the year, 13·4 in the second quarter, 15·6 in the third quarter, and 18·0 in the fourth quarter of the year.

The position of Brighton among the great towns is shewn in Table II. After correction for age and sex distribution, Brighton is fifth on the list, Derby, Leicester, Portsmouth and Croydon having a lower death-rate. In the following table the relative density of the population in each of these towns is shewn, the towns being given in order of density :—

TABLE IV.—*Density of Population contrasted with Death-Rate in certain Towns.*

	Persons to an Acre in 1893.	Corrected Death-Rate, 1894.
Croydon	12·1	13·8
Derby...	28·2	16·5
Portsmouth	38·7	15·5
Leicester	21·5	15·9
Brighton	46·6	16·6
London	57·7	19·0
Thirty-three great towns	34·4	19·5

In the several sub-districts of Brighton the birth and death-rates were as follows :—

TABLE V.

Borough and Sub-Districts.	Population estimated to the middle of 1894.	Births.	Deaths.	Deaths from seven chief Zymotic Diseases.	Annual Rate per 1,000 of the Estimated Population.			Density of population stated as Persons per Acre.
					Birth-rate.	Death-rate.	Death-rate from seven chief Zymotic Diseases.	
SUB-DISTRICTS								
Palace ..	20,573	296	285	15	14·39	13·85	·72	83
Kemp Town	15,437	253	221	24	16·39	14·32	1·55	81
St. Peter's ...	68,152	2171	1270	93	31·85	18·63	1·37	58
Preston ...	14,453	335	167	11	23·02	11·47	·76	16
Entire Borough	118,715	3055	1943	143	25·76	16·37	1·20	47

The birth-rate varied from 31·8 in St. Peter's to 14·4 in the Palace, and the death-rate from 18·6 in St. Peter's to 11·5 in the Preston sub-district. The lowest death-rate from zymotic diseases was in the Preston sub-district.

The number of acres in the Palace sub-district is 249, in the Kemp Town sub-district 191, in St. Peter's 1185, and in Preston 904, not including 91 acres of foreshore. These give a density of population in 1894 in the respective sub-districts of 83, 81, 58 and 16 persons per acre.

The true density of the population of Brighton may be best inferred from a consideration of its individual wards, as re-constituted last year. Owing to the fact that the areas of these do not correspond with the enumeration areas at the census, there has been great difficulty in calculating the population of each ward. Hence the following figures, although fairly accurate, are, like the figures for acreage, only approximately so:—

TABLE VI.—*Population and Density of Population in each Municipal Ward of Brighton.*

Ward.	Population middle of 1891.	No. of Acres.	No. of Persons to every Acre in 1891.
West	5272	73	72
Regency	8460	78	109
Pavilion	5316	69	77
St. Nicholas	9742	69	142
Montpelier	7057	105	67
St. Peter's	7785	48	163
Preston Park	4190	420	10
Preston... ..	8294	506	16
Lewes Road	10814	274	39
Hanover	11022	73	151
St. John's	11202	76	147
Pier	11906	82	146
Queen's Park	7144	192	37
Kemp Town	7422	464	16
	115616	2529	46

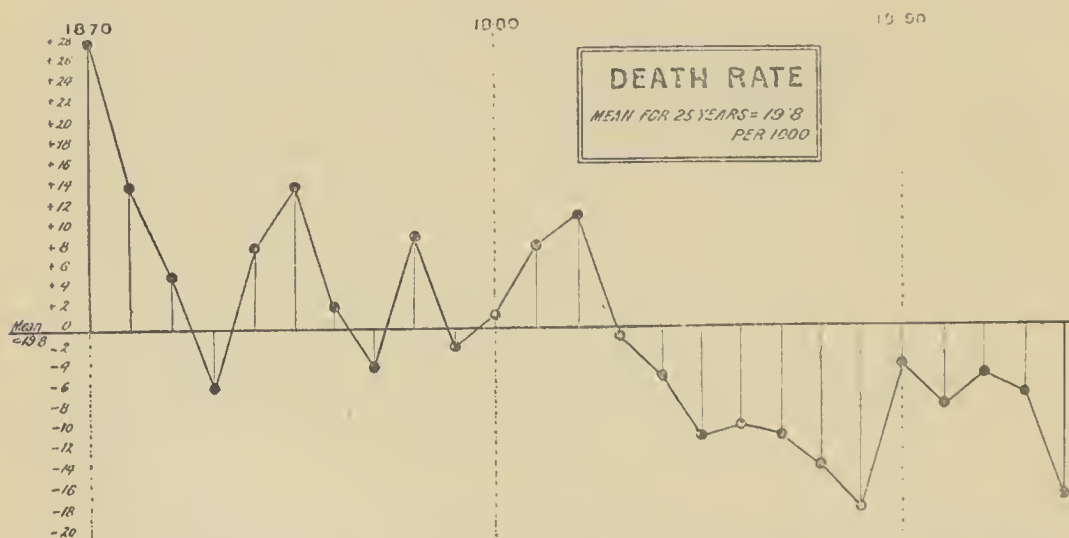
It will be seen that the most densely populated ward is St. Peter's, next to it coming the Hanover, St. John's, the Pier and St. Nicholas Wards. Of these wards, St. Peter's, St. Nicholas, St. John's, Hanover, and a portion of the Pier Ward are in the registration sub-district of St. Peter's, which had last year a death-rate of 18·6 per 1,000, as compared with 13·3 per 1,000 for the rest of the Borough, an excess of 39 per cent. for St. Peter's sub-district.

A comparison of Brighton with the other great towns of England shews that it is only exceeded in density by six other towns. We have seen above that its most densely populated parts are those in which the death-rate is highest. It must be admitted that *under present conditions* the degree of aggregation of population has some influence on the death-rate, and that one of the most desirable objects for Brighton is the extension of its municipal borders, and the encouragement of artizans' dwellings in the outskirts of the town with cheap means of communication. This would do much to diminish overcrowding in the more central parts of the town, and to raise the general standard of health of the community.

Comparison with Former Years.

The general death-rate of 1894 compares very favourably with that of preceding years. The accompanying curve shews that, notwithstanding the

DIAGRAM 2.



NOTE.—See note to Diagram 1. The horizontal line denotes the mean death-rate for 25 years, and the vertical distance for each year gives the percentage excess or deficiency from this mean. It will be seen that since 1882 the death-rate has always been lower than the mean-rate for the whole period.

fatal effects of Influenza during the last five years, which is a completely new enemy to life so far as the present generation is concerned, the death-rate has during the last twelve years never been above the mean rate for the last 25 years (19·8 per 1,000). In 1894 it was only 16·4 per 1,000, a record which has only been beaten in one previous year, viz., 1889, before Influenza appeared in our midst.

Death of Visitors.

Of the total 1,958 deaths registered in Brighton during last year, 104 were stated to be of visitors. The return of deaths among visitors is incomplete, many of the deaths occurring amongst visitors not being marked as such. The County Hospital in particular draws a considerable number of patients from surrounding districts, as will be seen from the following table of deaths in that institution:—

	1890.	1891.	1892.	1893.	1894.
Deaths of Inhabitants of Brighton ...	78 ...	95 ..	75 ...	94 ...	94
Deaths of persons from the rural districts of Sussex, &c. ...	... 29 ...	... 18 ...	... 23 ...	... 19 ...	... 21
Deaths of persons from Hove ...	... 9 ...	... 10 ...	... 4 ...	... 6 ...	... 12
Deaths of persons from London, &c... ..	3 ...	3 ...	2 ...	2 ...	2
Addresses not known	.. — ...	— ...	— ...	— ...	4
	— 110	— 126	— 104	— 121	— 133

Thus, taking the average of five years, 26 per cent. of the total deaths in the County Hospital were of non-residents.

Of the 37 deaths in the Children's Hospital during 1894, three were of patients from Hove and one from Lewes.

The Registrar-General now excludes from the Brighton returns the deaths of persons, who had not resided in the Borough previously to their admission to the Institutions, which occur in the Female Convalescent Home, Marine Parade, in the Sussex County Hospital, and in the Borough Sanatorium respectively: and includes on the other hand the deaths of any Preston paupers which occur in the Steyning Union Workhouse. The result of the correction carried to this extent is to reduce the total 1958 deaths by fifteen. As shewn by the above table, 35 deaths of outsiders occurred at the County Hospital. No correction is made for the Children's Hospital and other institutions in the town: and no account is taken of the much larger number of visitors who die in Brighton, but not in any public institution in it.

Deaths in Public Institutions.

Of the total deaths, 187 occurred in the Workhouse, 133 in the County Hospital, 37 in the Children's Hospital, 18 in the Sanatorium, 2 in the Throat and Ear Hospital, 2 in the Lying-in Hospital, 3 in St. Mary's Home, and 1 in the Dispensary, Queen's Road.

Chief Causes of Death.

The chief causes of death and the number of deaths from each disease or group of diseases are tabulated in Table VIII., and the same table not only gives the relative incidence of different diseases, but also enables us to see the incidence of each disease in the two sexes and at different ages.

TABLE VII.

CAUSES OF DEATH IN BRIGHTON DURING THE YEAR 1894.				Total Deaths.	SEX.		AGES AT DEATH.			
					Male.	Female.	0—1	1—5	5—10	10—15
I. Specific Febrile or Zymotic	Small Pox			—	—	—	—	—	—	—
	Measles			36	19	17	13	22	1	—
	Whooping Cough			14	3	11	5	9	—	—
	Enteric Fever			11	7	4	—	—	1	1
	Diarrhœa			52	26	26	42	8	—	—
	Diphtheria			26	15	11	1	13	7	4
	Scarlet Fever			4	2	2	—	3	1	—
	Puerperal Fever			—	—	—	—	—	—	—
	Erysipelas			6	4	2	1	—	—	—
	Other Zymotic Diseases			15	5	10	8	4	—	1
Influenza			49	25	24	3	4	—	1	
II. Constitutional	Phthisis	Tubercular		181	104	77	1	4	1	3
	Tabes Mesenterica			26	15	11	14	9	2	—
	Brain Tubercle... ..			30	18	12	5	20	4	—
	Other Tubercular Diseases			48	30	18	7	8	5	4
	Cancer Malignant Diseases		120	43	77	—	1	—	—	
	Gout and Rheumatism		20	8	12	—	—	1	1	
	Other Constitutional Diseases		30	16	14	3	6	1	—	
III.	Parasitic Diseases		—	—	—	—	—	—	—	
IV.	Dietic... ..		9	3	6	—	—	—	—	
V. Local.	Nervous Diseases, excluding Convulsions		139	62	77	13	11	—	3	
	Convulsions		54	25	29	40	13	—	—	
	Diseases of Organs of Special Sense		1	1	—	1	—	—	—	
	Circulatory		177	72	105	2	—	3	2	
	Respiratory		321	156	165	70	70	4	—	
	Digestive		113	43	70	23	9	4	1	
	Generative		15	—	15	—	—	—	—	
	Urinary		57	36	21	1	—	1	—	
	Locomotor... ..		8	5	3	—	1	2	—	
	Integumentary		12	7	5	3	3	—	—	
VI. Develop- mental.	Lymphatic		1	1	—	1	—	—	—	
	Premature birth and low vitality		85	57	28	84	1	—	—	
	Congenital defects and malformations... ..		8	4	4	6	—	1	—	
VII.	Old age		159	59	100	—	—	—	—	
	Violence		55	33	22	12	3	—	—	
VIII.	Ill-defined		61	34	27	61	—	—	—	
TOTALS				1943	938	1005	420	222	39	21

Infant Mortality.

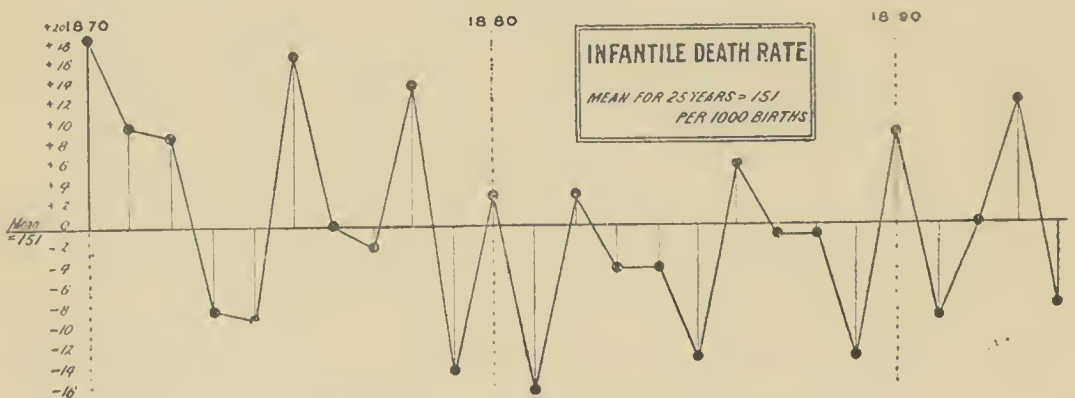
The infantile mortality (under one year of age) is best stated in terms of the infantile population, that is, practically the annual number of births. Thus stated, during last year it was 137 per 1,000 births, being highest in the Kemp Town and St. Peter's sub-districts.

TABLE VIII.—*Infantile Mortality in each Sub-District of Brighton.*

	Death-rate per 1,000 Infants.					
	1889	1890	1891	1892	1893	1894
Palace ...	134	120	122	140	155	115
Kemp Town ...	152	199	150	125	193	154
St. Peter's ...	129	185	146	165	174	145
Preston ...	105	100	89	91	114	96
Borough of Brighton ...	131	164	137	151	169	137

Diagram 3 shews the variations in infantile mortality during the last 25 years. There has evidently been only a small improvement. That there is scope for a very great reduction under this head is shewn by the difference between Preston (96 per 1,000 infants) and Kemp Town (154) and St. Peter's (145 per 1,000) last year. The same difference shews that social conditions are the cause of a large share of the higher mortality in the poorer districts of the town. In the latter, parents are often obliged to leave their infants under unskilled care, and apart from this the lives of many infants are sacrificed by ignorance of their proper management.

DIAGRAM 3.



Mortality among Illegitimate Infants.

The total number of deaths under one year of age in 1894 was 420. Of this number 45 were illegitimate children. Stated in proportion to numbers living, the relative mortality among legitimate and illegitimate infants was as follows :—

	1891.	1892.	1893.	1894.
Deaths of Legitimate Infants per 1,000 Births	118 ...	134 ...	158 ...	135
" " Illegitimate " " "	293 ...	360 ...	319 ...	173

The excess of mortality among illegitimate as compared with legitimate infants was much less than in the three preceding years.

Deaths from Tubercular Diseases.

A special importance attaches to tubercular diseases, in view of the fact that they are due essentially to the entrance into the system of a special micro-organism, the tubercle-bacillus. The majority of those thus receiving infection are happily able to resist its development. In weaker persons, however, and particularly in those with a family predisposition to the disease, the reception of the infection is followed by the slow development of tuberculosis.

There can be no doubt that the specific infection of tuberculosis enters the system largely by two channels:—

- 1st—Inhaled with the dust produced by the drying of the expectoration of consumptive patients, and
- 2nd—Swallowed with food derived from tuberculous animals, and more particularly the milk of tuberculous cows, drunk in an unecooked condition.

The inhalation of infected dust is especially potent for evil under conditions of over-crowding, involving the repeated re-breathing of a foul atmosphere. For this reason, we find that consumption is more prevalent among those having indoor occupations than among those whose work keeps them out of doors; and is more prevalent among the poor than among the well-to-do; in narrow streets than in wide thoroughfares; in houses sub-let under insanitary conditions than in self-contained houses.

It will be seen from the following figures that some improvement in the mortality from consumption has been already secured:—

Mean Annual Death-Rate in Brighton from Phthisis (Consumption), per 100,000 Persons in Groups of Years.

Ten years, 1861-70	...	...	...	295
Ten years, 1871-80	...	...	...	247
Three years, 1881-83...	...	...	...	193
Three years, 1884-86...	...	...	...	169
Four years, 1887-90	...	...	...	169
Three years, 1891-93...	...	...	...	150
Year 1894	...	...	...	152

During 1894, the deaths from Consumption numbered 181. In 134 of these it was found practicable to make inquiries into the history and environment of the deceased. There was clear evidence that in at least 26 out of the 134, or 19·4 per cent., the illness dated from some time precedent to the time of coming to live in Brighton. In not a few cases death occurred within a few weeks (in one case within four days) after the patient came to Brighton. Such sending patients to the sea-side in the last stages of disease is to be deprecated from the standpoint both of the patient and the town.

Of the 26 cases in which a definite history was obtainable, three had lived less than 1 month in Brighton at the time of their decease; three between 1 and 3 months; seven between 3 and 6 months; two between 6 and 12 months; six between 1 and 2 years. In the remaining five the symptoms dated from a period previous to settling in Brighton. It will be noted that this statement is necessarily incomplete. In 47 cases no inquiry was practicable, and there is reason to believe that the majority of these were temporary residents in the town.

In 64 houses in which consumptive patients had died the sick-rooms were thoroughly cleansed and disinfected, and thus danger to the next

occupants of the rooms in question avoided. Where the family doctor has advised this disinfection after the fatal termination of a case of Phthisis, no difficulty has been found in carrying it out; and such requests will in the future receive prompt attention.

The following cases investigated in 1894 may be taken as illustrating the history of infection which is not infrequently obtained:—

A man aged 38 years died during last year of Phthisis. He came from Portsmouth in 1892 already ill, where in 1891 his wife had died of Phthisis.

A woman aged 40 years died of Phthisis. She had been married twice, both husbands having died before her of Phthisis. The order of events in this case was probably that she acquired Phthisis from her first husband, and gave it to her second husband, in whom it ran a more rapid course than in her.

A married woman aged 42 years died of Phthisis. Her first husband died of Phthisis in another house. There are several instances like this.

A man aged 47 years died from Phthisis in October, 1894, after an illness of several years. His daughter, who helped to nurse him, died in January, 1895, from Phthisis.

At another house four children of the same family died in succession of Phthisis, viz.: a young woman aged 23 years, in January, 1891; a girl aged 16 years, in August, 1891; a young woman aged 22 years, in August, 1892; and a boy aged 16 years, in November, 1894.

A woman aged 36 years, died in August, 1894, from Phthisis. Her son died in May, 1893, of Tubercular Meningitis (*i.e.*, tuberculosis of the membranes of the brain).

On January 19th, 1894, a boy aged 8 years died of Phthisis, a sister having succumbed to the same disease in December, 1891. On January 14th, 1894, a lodger's child aged 12 months, who had lived in the house since his birth, died of Tubercular Meningitis.

The two last cases were almost certainly instances of infection from patients with Phthisis, which is usually a protracted disease, while Tubercular Meningitis proves fatal in a few days.

If the narration of cases like the preceding produced a fear of living in the same house with consumptive patients, serious and unnecessary hardships to invalids would result. Assuming that simple precautions are taken, there is little or no danger of infection. What is necessary is that all expectoration should be at once burned, or a spittoon used containing a strong solution of carbolic acid or corrosive sublimate. Pocket handkerchiefs should not be used for expectoration. Furthermore, the state of personal health is an important factor in the production of consumption. Attention to this, along with simple means of disinfection and cleanliness, removes the danger of communication of consumption.

Zymotic Diseases.

The seven chief infectious diseases caused 143 deaths as compared with 215 in the previous year, which is equivalent to an annual death-rate of 1·2 per 1,000 of population.

The relative proportion borne by each Zymotic Disease is shewn in Table IX.

TABLE IX.—*Annual Death-Rate per 100,000 of Population from Zymotic Diseases.*

	1861 to 1870	1871 to 1880	1881 to 1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894
Small Pox	22	8	4.3	0.9	0	0	0	0	0	0	0	0	0
Measles	43	27	53.5	30.6	9.8	64.0	2.7	40.3	53.1	24.2	99.3	11.0	30.3
Scarlet Fever	63	39	47.7	6.3	12.5	8.9	7.9	15.8	10.4	0.9	6.8	9.3	3.3
Diphtheria	26	8	7.5	16.2	18.8	26.7	21.2	8.8	12.2	10.4	19.5	30.0	21.9
Whooping Cough	60	46	56.0	40.6	60.0	27.6	43.2	23.7	88.7	18.2	18.7	46.7	11.9
Fever (chiefly Enteric)	53	24	25.5	16.2	11.6	11.6	13.2	15.8	11.3	11.2	6.8	12.7	9.3
Diarrhoea	121	106	66.7	32.4	84.1	94.7	53.8	56.1	81.8	40.6	57.7	73.8	43.8
Seven Chief Zymotic Diseases	388.0	258.0	261.2	142.2	196.8	232.8	142.0	160.5	257.5	105.5	208.8	183.5	120.5

Influenza.

In my last annual report I remarked :

“When the history of the recent epidemics of Influenza comes to be completely written, it will probably be found that the death-toll caused by them has been heavier than that from any visitation of cholera to this country. If we add to the list of deaths due directly to its maleficent operation, those indirectly ascribable to it, we obtain a sum of injurious effects which has not been equalled by any other disease in modern times.”

The number of deaths directly ascribed to Influenza in Brighton since it first appeared has been as follows :—

Year.	No. of Deaths ascribed to Influenza.					No. of Deaths from Diseases of the Respiratory Organs.
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total for Year.	
1889	—	—	—	—	—	291
1890	18	5	—	—	23	417
1891	37	27	7	—	71	381
1892	143	3	1	2	149	392
1893	8	8	6	11	33	343
1894	35	5	—	9	49	321

It is not necessary for me to discuss further the subject of Influenza, except to draw attention to the fact that it is a new enemy to life and health, so far at least as the present generation is concerned: a fact which must be borne in mind in interpreting death statistics, especially those of a health resort like Brighton, whose population is being constantly replenished by invalids and convalescents. The subject will receive further consideration in my report for the first quarter of 1895.

The Notification of Infectious Diseases.

For a knowledge of the more important Infectious Diseases we are, since March 1st, 1891, no longer dependent on the uncertain and late information obtainable from the death-returns and from casual sources.

The more accurate and prompt returns furnished to me under the Infectious Diseases Notification Act show that the total number of *cases* of Infectious Diseases notified during 1894 was 541 :—Diphtheria, 124 :

Scarlet Fever, 219 ; Enteric Fever, 83 ; Erysipelas, 98 ; Puerperal Fever, 5 ; Membranous Croup, 4 ; Small Pox, 3 ; Continued Fever, 2 ; Septic Peritonitis, 1 ; and Fever (? Typhoid), 2.

	Diphtheria and Membranous Croup.			Scarlet Fever.			Enteric Fever.		
	1892	1893	1894	1892	1893	1894	1892	1893	1894
Number of Infectious Cases per 1,000 Inhabitants ...	·94	1·57	1·04	3·21	4·06	1·85	·54	·65	·69
Corresponding Deaths per 1,000 Inhabitants ..	·19	·29	·22	·07	·09	·03	·07	·13	·09
Number of Deaths per 100 cases	21·10	18·50	21·05	2·14	2·21	1·62	12·70	19·50	13·04

The above is the number of supposed *cases* of infectious disease. Further observation in a certain proportion of these led to a revision of the diagnosis.

In 41 cases, duplicate notifications were received, and two cases of Enteric fever were notified in succession by three doctors. The total number of notifications (including 12 notified by myself) was 588 as compared with 967 in 1893. Of these, 167 occurred in public medical practice—the amount payable for the certificates being £8 7s. : while 409 occurred in private medical practice—the amount payable being £51 2s. 6d. The total amount paid for notification certificates was £59 9s. 6d., as compared with £101 19s. in 1893 and £65 14s. 6d. in 1892.

Small Pox.

Last year I was able to report that notwithstanding the serious prevalence of small pox in various parts of the country, Brighton had escaped with the exception of a few introduced cases. *No secondary cases occurred*, although there were six distinct importations of this disease. During 1894 there were two importations, with three cases, two in one family ; and again, owing to the prompt measures taken, no secondary cases occurred.

In one case a visitor came to Brighton while suffering from the preliminary malaise of small pox. The anxiety in connection with this case was increased by its modified character, which led to its being at first regarded as chicken pox, a mistake which has in some other towns led to most serious results.

The remaining two patients were brothers, who added to their ordinary income by advertising for sunlight soap coupons, in connection with which prizes were offered. In answer to these advertisements they received

thousands of coupons from various parts of the country, some of which I afterwards ascertained came from districts in which small pox at the time prevailed. Both brothers had very modified and slight attacks, which nearly led to their being overlooked. They had not been out of Brighton, or come in contact with infection so far as could be ascertained, except through the probable agency of the coupons.

We may hope that with continued vigilance and promptitude of action our present immunity against outbreaks of small-pox will continue: but this immunity must depend to a large extent on the prompt and early notification of all doubtful cases. If a slight modified case, such as is apt to occur in a moderately well vaccinated person, is missed, the disease may obtain a serious footing. In view of such a contingency the state of vaccination in Brighton is a matter of vital importance.

The following figures as to vaccination in Brighton (not including Preston) are furnished by Mr. Clifford, Vaccination Officer.

TABLE X.

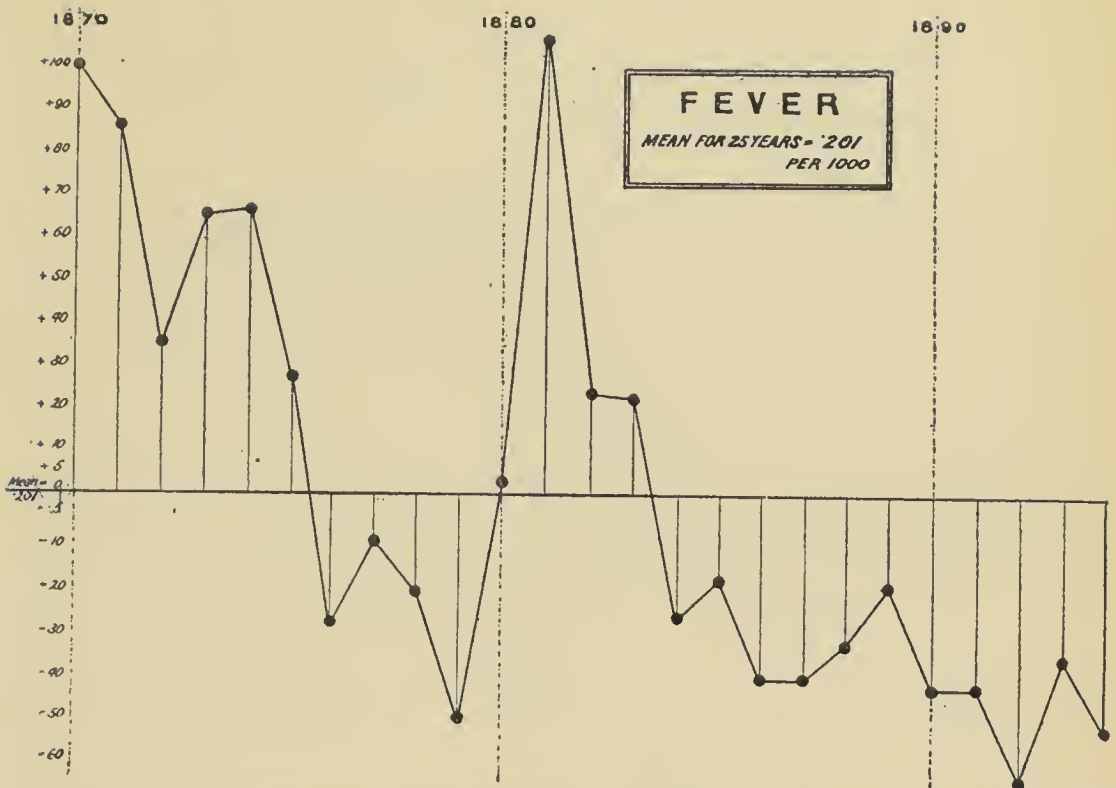
	Number of Births Regis- tered.	Success- fully Vac- cinated.	Insus- ceptible of Vac- cination.	Had Small Pox.	Dead Unvac- cinated.	Post- poned by Medical Certifi- cate.	Removed to Districts the Vaccination Officer of which has been apprised, or re- moved to places unknown.
July 1st, 1892, } to June 30th, 1893 }	2637	2146	7	—	268	84	132
July 1st, 1893, } to June 30th, 1894 }	2644	2127	11	—	273	76	120

Thus, last year 5·3, as compared with 5·8 and 5·3 per cent. respectively in the two preceding years of the children born and not accounted for by death or medical certificate, probably escaped vaccination.

Enteric Fever.

Eighty-three cases of Enteric Fever were notified during 1894, of which 11 proved fatal. This disease, as shewn by the accompanying diagram, has steadily declined in prevalence during the last 25 years: and there is reason to expect a still greater decline.

DIAGRAM 4.



Of the 83 cases notified as enteric or typhoid fever 15 were subsequently found by their medical attendants not to have this disease, 15 others were imported into the town. Of the latter, three (one fatal) were admitted to the County Hospital from a house near Hassocks. This leaves the origin of 53 cases to be accounted for. A careful and exhaustive inquiry into the circumstances attending the onset of these cases led me to the conclusion that fifteen of them were caused by sewage-contaminated oysters. Six other cases were ascribable to other contaminated shell-fish eaten in an uncooked condition. Of these cases one was caused by clams, one by cockles, and two by mussels, which were eaten raw.

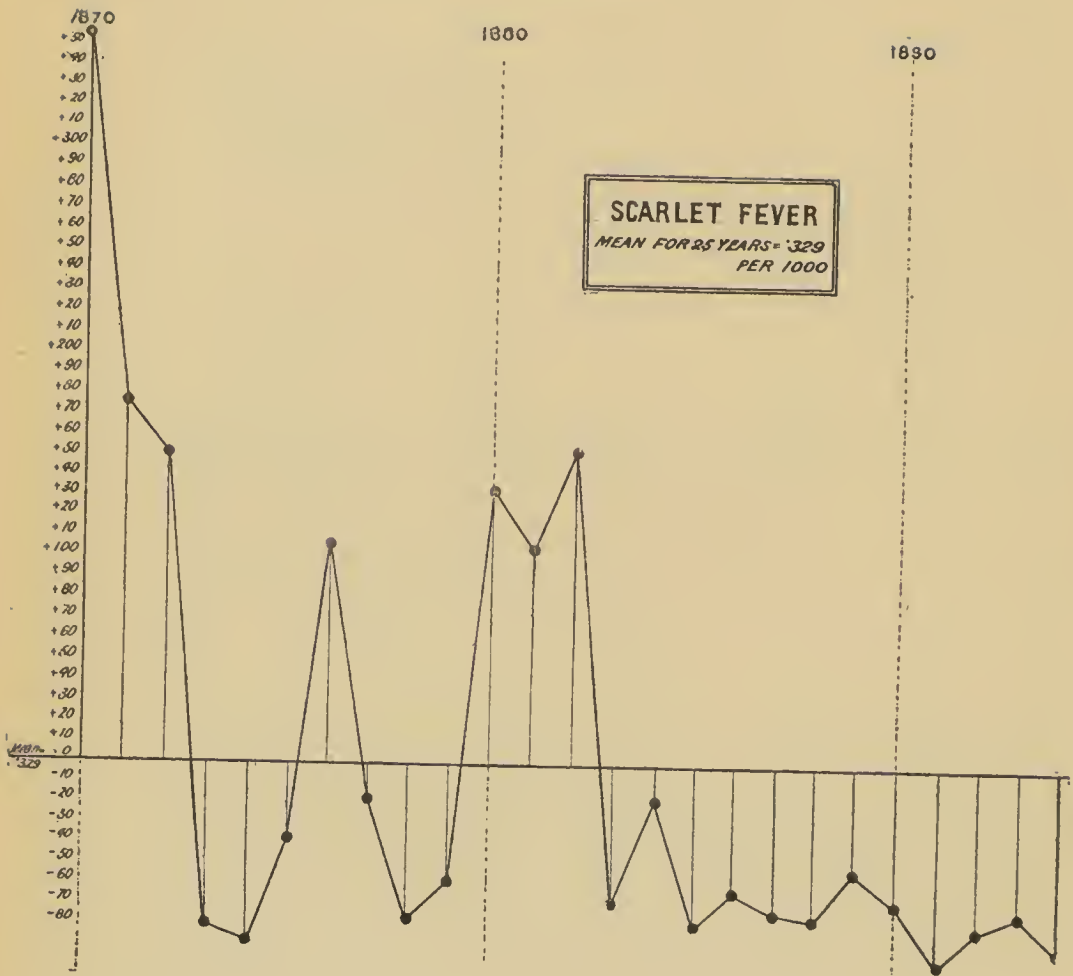
Of the remaining 32 cases, in seven no definite history was obtainable, and in 25 shell-fish as a cause was excluded. From this summary it will be seen that *at least 40 per cent. of the cases of enteric fever originating in Brighton during last year were ascribable to sewage-contaminated shell-fish*, a fact of the practical bearings of which it is my duty to warn the public of Brighton.

Since my investigation of the majority of the cases above alluded to, the question of the transmission of enteric fever through the medium of sewage-contaminated shell-fish has received a large amount of notice both in the medical and lay press. A special enquiry into the subject has been instituted by the Local Government Board, and it is sincerely to be hoped that it will result in legislation which will enable Local Authorities to cope with the evil.

Scarlet Fever.

The deviation from the average of the annual mortality from scarlet fever during the last 25 years is shewn in the accompanying diagram. It will be seen that there has been a remarkable decline in the mortality from this disease. A portion of this decline is due to the less severe type

DIAGRAM 5.



of scarlet fever which is now prevalent; the decline in deaths being disproportionate to the decline in total number of cases. This is not, however, the sole cause of the decline in scarlatinal mortality. Much must be ascribed to the fact that a higher proportion of the total cases of scarlet fever are now treated in the Borough Sanatorium, where they have a better prospect of recovery than in the majority of homes.

The exact extent to which the Borough Sanatorium is used for scarlet fever can be stated with accuracy for the last four years, notification of cases of infectious disease having become compulsory on March 1st, 1891. In the remaining part of 1891, the number of admissions for scarlet fever formed 70.0 per cent. of the total cases notified; in 1892 they formed 71.7 per cent.; in 1893, 70.6 per cent.; and in 1894, 82.2 per cent. This proportion is, I believe, exceptionally high in the experience of great towns, and it speaks well for the popularity of the Sanatorium among those whose children are treated in it.

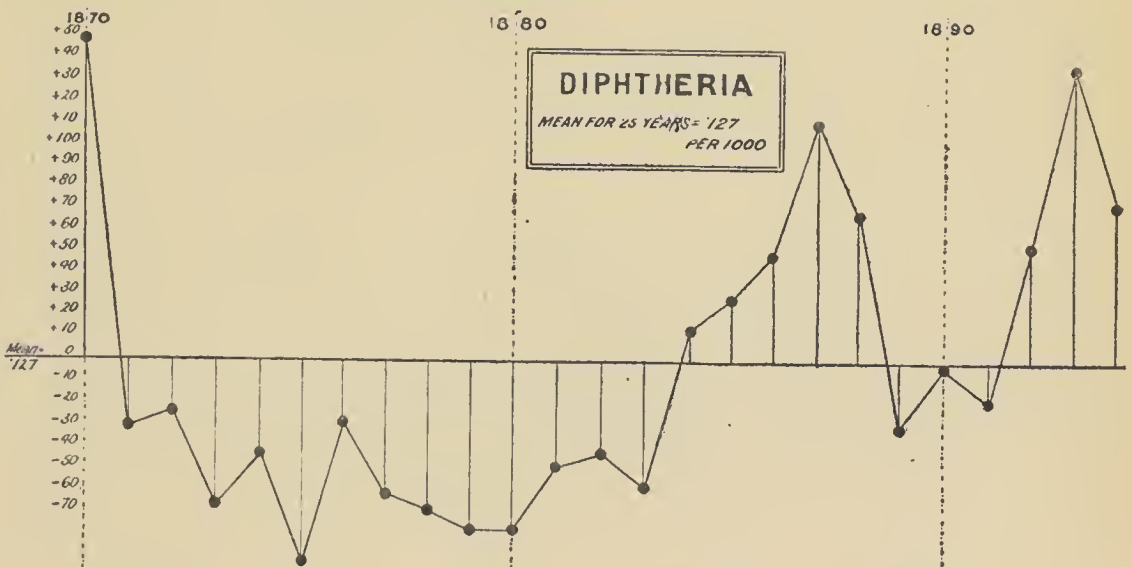
The relative case-mortality of home-treated and hospital-treated cases is shown below.

Number of Deaths per 100 cases.			
	Among all cases notified.	Among cases treated at home.	Among cases treated at the Sanatorium.
1892	2.14	1.0	2.5
1893	2.21	2.5	1.6
1894	1.62	2.56	1.30

Diphtheria.

The accompanying curve shews a considerable increase in recent years in the mortality from this disease. This increase reached its maximum in 1893, the next year showing a considerable improvement. The number of cases of diphtheria notified in 1894 were 1.04 per 1000 of population as compared with 1.57 in 1893.

DIAGRAM 6.



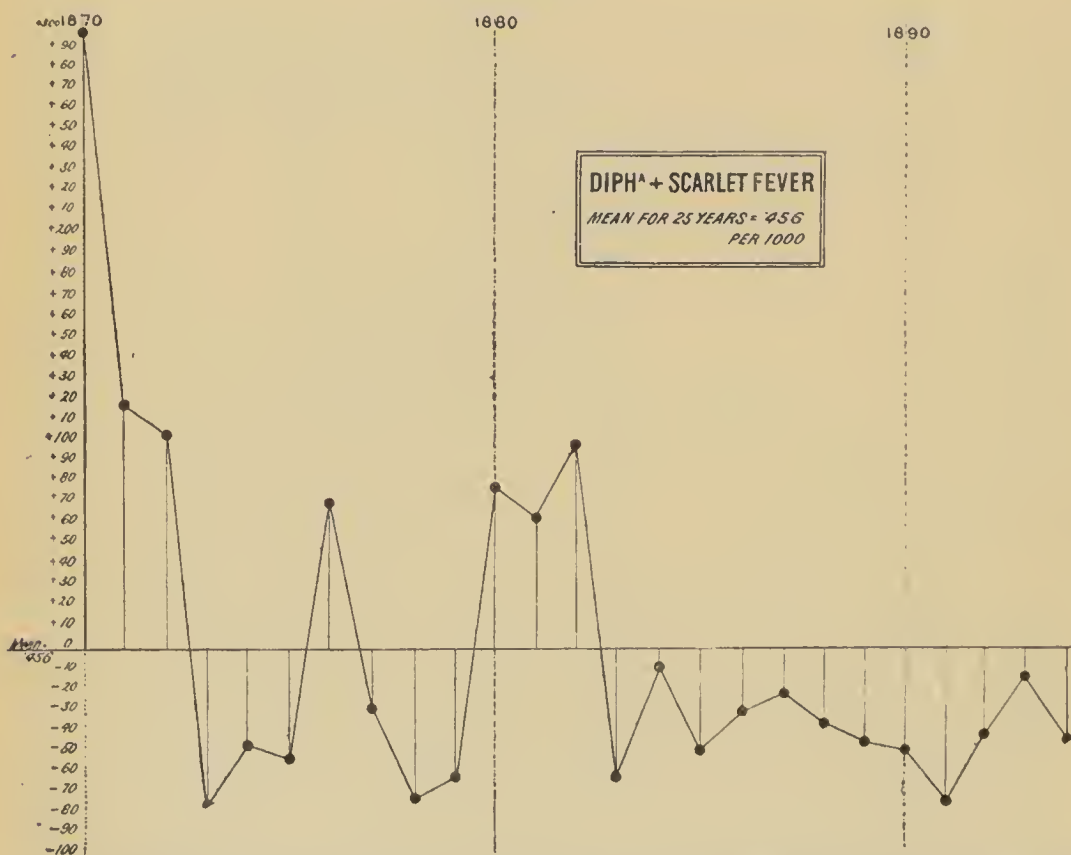
In considering the causes of this increase several points have to be borne in mind. In the first place, in the earlier years, it is probable that some deaths were returned as scarlet fever (*scarlatina anginosa*) which would now be registered as diphtheria. For this reason, I have prepared a second diagram shewing the combined mortality from the two diseases in each of twenty-five years. This, however, would explain only a small portion of the increase in diphtheria.

Secondly, there is reason to think that the increase of compulsory school attendance, by producing greater facilities of personal contact, has caused a greater and more rapid spread of diphtheria than in former years. Personally I am inclined to believe that there is at present a tendency to exaggerate the evil influence of school attendance *re* diphtheria; and that its action is but subsidiary to wider influences of whose nature we hitherto know but little.

Thirdly, to whatever extent increased school-attendance is responsible for increased diphtheria, there is no doubt that diphtheria is *intensely infectious*: and that its spread is not necessarily due to insanitary conditions of houses, schools, &c., though these may aid its progress. In the majority of cases in Brighton, it has been impossible to connect its origin with any local insanitary conditions.

Fourthly, over and above the preceding factors, there is, I think, some further influence, more important than all the rest, which in medical parlance is known as "epidemic influence": though as to the essential causes determining this occasional epidemicity of diphtheria we are hitherto profoundly ignorant. A glance at the diagram will shew three such periods, so far as Brighton is concerned. The first culminated in 1870, the second occupied the five years 1884-88 culminating in 1887, and the third culminated in 1893.

DIAGRAM 7.

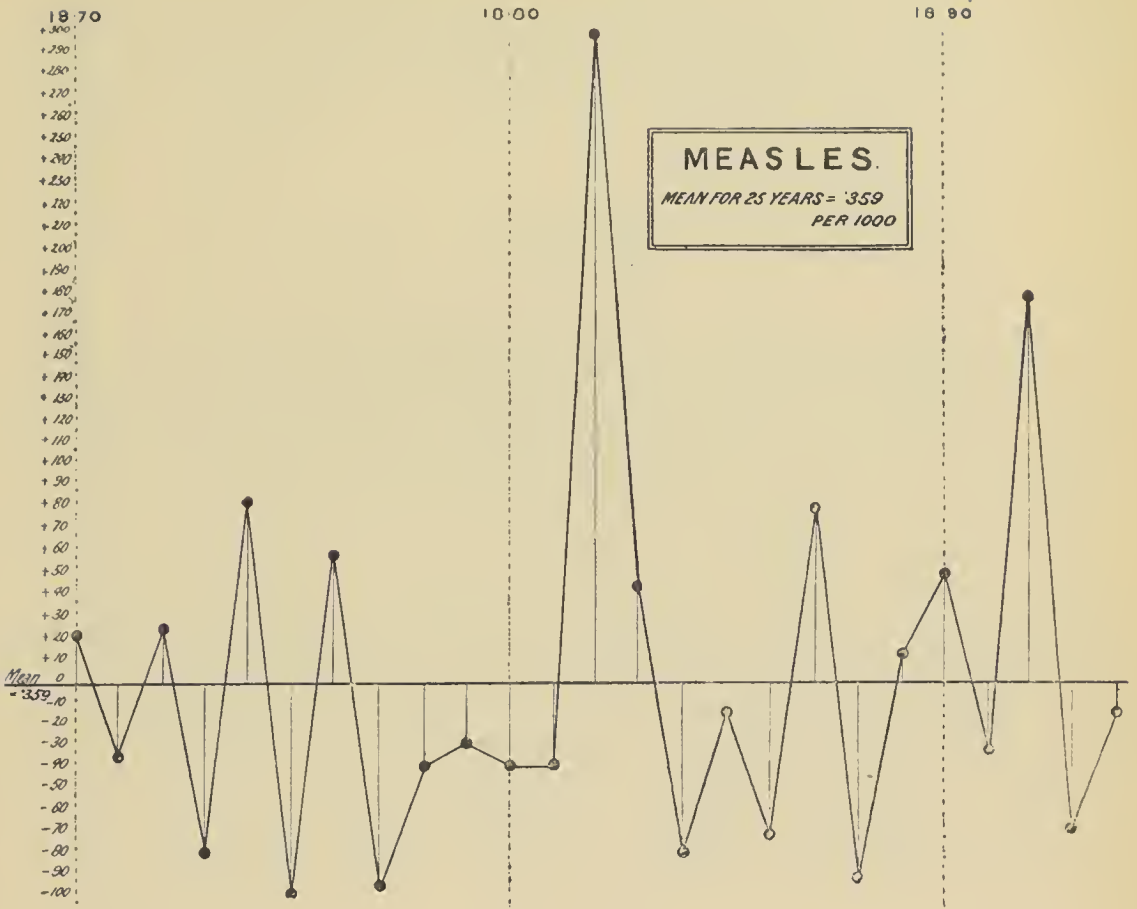


The intense infectiousness of diphtheria is insufficiently recognised by some doctors, as well as by the public. Its power of being conveyed by clothes, &c., as well as by personal contact, requires to be emphasised. On more than one occasion during last year surprise has been expressed when I objected to the use of a private cab for the conveyance of a diphtheria patient.

Measles and Whooping Cough.

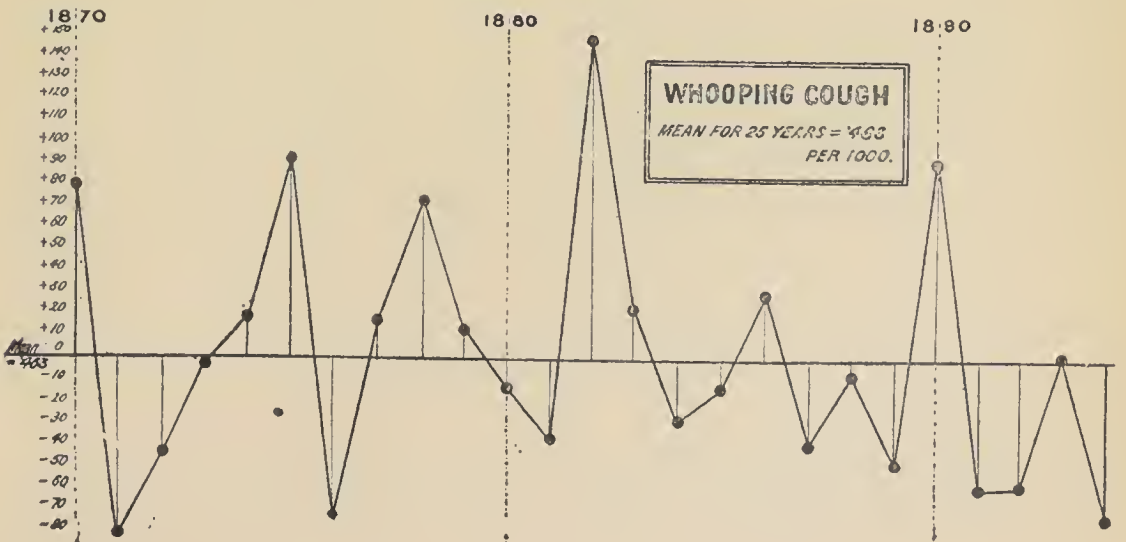
Measles and Whooping Cough are, with Diphtheria, the most unsatisfactory of the zymotic diseases from the standpoint of prevention. They recur, as will be seen from the accompanying diagrams, at intervals, apparently as soon as a sufficient number of children have accumulated who are unprotected by a previous attack.

DIAGRAM 8.



Although so little has apparently been accomplished in respect of these two diseases, it is not because no attempt has been made to cope with them. By co-operation with school teachers, we are supplied at frequent intervals with lists of suspicious absentees, who are visited by the female sanitary visitor at their homes, verbal and printed instructions as to the necessary precautions being left with the parent. It will probably require another ten or twenty years before the seriousness of these two diseases is

DIAGRAM 9.



thoroughly brought home to the majority of parents. One might be inclined to despair of the possibility of this were it not for the thorough manner in which the same parents have, during the last generation, learnt the lesson that a scarlet fever patient must be isolated for at least six weeks, and are prepared readily to act upon it.

Diarrhœa.

The diarrhœal mortality last year was 46 per cent. below the average for 25 years. Some of this decline was ascribable to the cool and wet summer; but that only a portion of the decline is thus explicable, is seen from the fact that in the phenomenally dry year 1893, the diarrhœa mortality was also 9 per cent. below the average for 25 years.

The diarrhœa mortality is an index of an uncertain proportion of insanitation, and unfavourable social conditions. As to insanitation, infrequent removal of decomposing house-refuse and uncleanness in the house, probably produce that poisoning of the food (especially milk) which leads to infantile diarrhœa. As to unfavourable social conditions, the worst are probably artificial feeding by bottle and "nursing out." The mothers are frequently engaged as charwomen or laundresses, while their infants are left in the charge of neighbours or children. Hence the diarrhœal mortality occurs chiefly in the poorest parts of the town.

DIAGRAM 10.



The curve in Diagram 10 shews very distinct evidence of improvement in recent years; though it is as yet but slow. It is almost certain that

the next generation of mothers, especially if practical domestic economy is inculcated in the elementary day schools, will be better prepared to fight against this almost entirely preventible cause of death. In the meantime the female sanitary visitor and sanitary inspectors visit the houses in which such cases are apt to occur, and distribute circulars, setting forth simple preeautionary measures.

Deaths from Violence, &c.

During the year 55 deaths were due to some form of violence. In 99 cases inquests were held, the verdicts returned being as follows:—

1—NATURAL CAUSES 49

2—SUICIDAL—

Poisoning	9
Cutting throat	5
Hanging	4
Shooting	1
	— 19

3—ACCIDENTAL—

Shooting	1
Suffocation	9
Knocked down by horse	1
Falls	4
Burns	6
Poisoning	2
Scalds	1
Inattention at birth	1
	— 25

4—OPEN VERDICT—

Found drowned	4
Found dead	2
	— 6

Total	99
--------------	----

Uncertified Deaths.

In 28 cases, *i.e.*, 1·5 per cent. of the total deaths, the cause of death was not medically certified, as compared with 2·3 per cent. in the preceding year.

TABLE XI.

Meteorology of the Year.

Number of Hours of Bright Sunshine and Sunless Days in 1894.

(Campbell-Stokes Sunshine Recorder).

Hours of Bright Sunshine in Brighton.				Sunless Days in Brighton.			
				1894.	1893.	1894.	1893.
January	...	...	...	78·73	29·75	9	16
February	...	...	...	97·23	80·62	9	8
March	...	...	...	202·90	193·80	1	3
April	...	...	...	175·96	280·65	3	0
May	...	...	...	220·28	223·40	0	0
June	...	...	...	183·39	247·54	2	1
July	...	...	...	201·51	212·81	2	1
August	...	...	...	159·96	258·59	1	0
September	...	...	...	146·05	167·39	5	2
October	...	...	...	92·54	141·37	5	5
November	...	...	...	95·16	69·48	8	10
December	...	...	...	63·06	66·30	13	8
Total for Year...				1716·79	1971·70	58	54

TABLE NIL.

1894.

MONTH.	Temperature of air during the month.			Mean temperature of air.	Mean degree of humidity Saturation = 100.	WIND.								RAINFALL.			
	Mean of					Number of days of.								Number of days on which rain fell.	Amount collected in inches.		
	Highest.	Lowest.	All highest.			All lowest.	N.	N.E.	E.	S.E.	S.	S.W.	W.			N.W.	Calm.
JANUARY	49.0	13.2	43.9	35.3	90	2	6	1	2	3	11	5	1	0	23	4.23	
FEBRUARY	52.4	26.4	46.8	38.1	86	1	5	2	1	1	10	5	3	0	14	2.12	
MARCH	61.8	32.0	52.2	39.6	80	3	9	1	2	1	6	6	3	0	15	1.46	
APRIL	70.8	36.8	58.1	45.5	76	0	8	4	5	4	7	2	0	0	11	2.40	
MAY	73.2	35.4	58.9	45.3	74	5	9	0	1	3	8	1	4	0	15	1.22	
JUNE	82.8	46.4	64.7	52.8	78	4	6	0	1	1	12	3	3	0	16	1.83	
JULY	81.6	50.6	67.8	57.0	77	0	5	0	1	3	15	4	3	0	17	5.15	
AUGUST	70.0	46.4	66.9	56.4	80	1	5	1	0	0	14	4	5	1	19	1.88	
SEPTEMBER	71.4	41.4	63.6	50.6	78	8	18	2	1	0	0	0	0	1	11	2.23	
OCTOBER	64.8	36.2	57.6	47.7	81	4	14	1	0	2	7	2	0	0	16	3.63	
NOVEMBER	61.0	38.2	53.0	44.8	85	4	6	0	1	6	8	3	2	0	15	3.64	
DECEMBER	52.6	28.4	47.7	39.1	86	3	6	0	1	2	7	6	6	0	17	2.15	
ENTIRE YEAR...	82.8	13.2	56.7	46.0	81	35	97	12	16	26	105	41	30	2	189	31.94	

B.—SANITARY WORK OF THE YEAR.

Sanitary Inspections.

In the following tables the work of the Sanitary Department is stated, so far as it can be given in tabular form. It will be seen that 9,774 houses were visited in the course of house-to-house inspection, as compared with 10,044 in the previous year. This, however, does not represent the total number of houses visited during the year. Apart from house-to-house inspection, a large proportion of the time of inspectors is occupied in attending to complaints received from householders in every part of the town. During last year 1,961 such complaints received attention, as compared with 2,180 in the previous year. In addition, 5,824 visits were made by the special inspector for purposes of investigation and disinfecting after cases of infectious disease. In each of these cases it is the practice to take the opportunity of making a sanitary examination of the houses visited. 6,145 visits were made during the year to Slaughter Houses, 347 to Cowsheds, 197 to Bakehouses, 1,702 to Dairies and Provision Shops. The Common Lodging-Houses have received 207 visits. In 238 houses the soil-pipe has been tested by the volatile tests; and 600 drains have been opened for examination.

TABLE XIII.—*Inspections during 1894.*

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals for 1894.	Corres- ponding Total, 1893.
Number of Streets Inspected ...	142	77	60	70	349	278
Number of Houses and other Premises Inspected ...	3034	2423	2037	2280	9774	10044
Number of Complaints attended to ...	476	509	561	415	1961	2180
Number of Visits to Slaughter Houses ...	1724	1576	1452	1393	6145	5791
Number of Visits to Cowsheds ...	104	112	73	58	347	613
„ „ Bakehouses	5	—	179	13	197	155
„ „ Dairies and Provision Shops...	609	406	299	388	1702	1844
Number of Day Visits to Common Lodging-Houses ...	68	18	25	45	156	338
Number of Night Visits to ditto	—	17	—	34	51	68
„ Visits in respect of Sickness ...	1043	1260	1596	1925	5824	5579
Number of Visits to Fumigate Rooms ...	104	113	100	84	401	670
Number of Visits for Removal of Bedding ...	76	64	78	41	259	492
Number of Drains tested by Volatile Test ...	56	65	59	58	238	198
Number of Drains Opened for Examination ...	152	170	133	145	600	996
Number of Smoke Observations	11	4	12	10	37	80
„ Visits for Sundry Purposes ...	874	192	806	1150	3022	2836
Number of Visits to look up Notices Served ...	3934	3005	2881	2631	12451	15588
Number of Attendances at Police Court ...	7	7	2	9	25	39
Number of Notices Served for Town Clerk ...	154	108	299	23	584	163
Number of Samples Collected for Analysis ...	16	21	66	10	113	184
Number of Visits to Offensive Trades ...	6	10	1	—	17	8
Number of Inspections of Stables	88	63	—	—	151	463
„ Wastes of Water re- ported ...	221	117	132	95	565	438
Number of Letters sent to Schools and Public Library ...	80	115	139	211	545	484
Markets Committee (1 Inspector)	—	—	10 days	—	10 days	14 days
Meteorological Observations taken ...	91	91	91	92	365	365
Visits to Schools ...	131	142	109	138	520	1192
Number of Visits under Factory & Workshops and Shop Hours Act ...	1325	1309	954	1089	4677	4431
Number of Visits for Contagious Diseases Animals Committee...	—	—	6	139	145	—

The Sanitary Inspections enumerated in Table XIII. have been followed by the serving of the notices given in Tables XIV. and XV. A very large proportion of the work is done on the strength of verbal recommendations or preliminary “warning” notices.

TABLE XIV.—*Notices served on Owners during 1894.*

Nature of Notice.		Warning and Verbal Notices.			Final Notices.		Notices served in 1893 complied with since issue of last Annual Report.	Total Number of Notices complied with.
		Number served.	Number complied with before service of final notice.	Number reported for final notice.	Number served.	Number complied with.		
Public Health Act.	To drain into sewer and fill up cesspools	42	5	37	33	33	1	39
	To relay drain and fill up cesspools ...	11	1	10	10	10	—	11
	To relay drain ...	445	51	394	432	430	1	482
	To repair drain and soil pipe ...	275	55	220	245	244	2	301
	To trap drain ...	366	215	151	203	199	2	416
	To cleanse & white-wash rooms ...	182	105	77	77	75	2	182
	To clear drain or soil pipe... ..	108	1	107	121	121	—	122
	To clear, repair or cleanse closet, or repair flushing apparatus or pan...	1102	516	586	615	600	4	1120
	To repave yard or scullery	228	98	130	125	114	4	216
	To pave and drain stables	8	1	7	3	3	—	4
	To abate other nuisances	602	351	251	235	227	15	593
	To provide covered dust bins	858	359	499	685	626	47	1032
Brighton Improvement Act.	To lay on water to closet	298	113	185	102	99	9	221
	To alter water pipes	23	7	16	18	18	—	25
	To cause waste pipes to discharge into outer air	41	22	19	23	23	—	45
Totals		4589	1900	2689	2927	2822	87	4809

TABLE XV.—*Notices Served on Occupiers during 1894.*

Nature of Notice.	Warning and Verbal Notices.			Final Notices.		Total Number of Notices complied with.
	Number Served.	Number complied with before service of final notice.	Number reported for final notice.	Number Served.	Number complied with.	
To cleanse premises and remove foul accumulations	189	104	85	101	101	205
To clear, cleanse or repair closets, or repair flushing apparatus	483	351	132	136	136	487
To cleanse urinals	16	13	3	7	7	20
To clear or trap drain, or cleanse foul traps	122	80	42	21	21	101
To abate overcrowding	103	57	46	47	44	101
To cleanse and whitewash rooms	50	43	7	15	15	58
To discontinue keeping animals so as to be a nuisance	89	50	39	44	44	94
To abate smoke nuisance	25	23	2	2	2	25
To discontinue to let or occupy cellar dwellings	9	8	1	1	1	9
To cleanse and whitewash bakehouses	53	48	5	14	14	62
To abate other nuisances	85	66	19	14	13	79
To reinstate water supply to closets	16	12	4	—	—	12
Totals	1240	855	385	402	398	1253

The increased readiness with which notices are complied with has been continued during 1894, as evidenced by Tables XVI. and XVII.

TABLE XVI.

Date of Annual Report.	Year under Report.	Percentage of Notices not complied with at time of issue of Report.
March 23rd, 1889	1888	20 per cent.
February 13th, 1890	1889	14 "
March 31st, 1891	1890	4.3 "
March 16th, 1892	1891	3.2 "
April 21st, 1893	1892	1.3 "
April 13th, 1894	1893	0.8 "
April 15th, 1895	1894	1.3 "

The number of summonses for sanitary defects which it has been found necessary to issue in successive years is given in the following table:—

TABLE XVII.

Offence.	1889	1890	1891	1892	1893	1894
Failing to abate nuisances ...	20	16	21	4	4	4
Failing to lay on water to closets	36	11	13	6	3	—
Failing to alter water pipes ...	—	—	—	1	—	—
Failing to cause waste pipes to discharge in open air ...	—	1	—	—	—	—
Totals	56	28	34	11	7	4

Housing of the Working Classes Act.

Official representations have been made by me under Part II. of the above Act during 1894, that the following premises are in a state so dangerous to health as to be unfit for human habitation:—

	No. of Houses.	Legal Proceedings taken.	Result.
Claremont Row ...	5	None	Houses put into thorough repair.
Pool Passage ...	2	None	Houses voluntarily closed ; plan submitted for re-construction, but disapproved, and houses remain closed.
Albion Street ...	2	Summons issued	Houses put into thorough repair.
Essex Place ...	7	2 Summons issued	Closing Order made by Magistrates ; houses afterwards purchased by Corporation ; pulled down, and site paved over.
Claremont Row ...	3	None	Houses voluntarily closed and plans submitted for alteration, including demolition of two of the houses ; work not yet done, and houses remain closed.
Carlton Row ...	1	Summons issued	Closing Order made by Magistrates, and house closed.
Glo'ster Road ...	3	None	Houses put into thorough repair.
Chesterfield Street	1	None	Houses closed and pulled down in connection with an Improvement Scheme under Part I. of the Housing of the Working Classes Act.
Carlton Hill ...	2	None	
Thomas Street ...	1	None	
William Street ...	1	Summons issued	Summons adjourned and house undergoing repairs.
High Street ...	2	Summons issued	Closing Order made by Magistrates and the houses closed.
Total No. of Houses	30		

Common Lodging Houses.

In my last report, I mentioned that of the total 17 common lodging houses then existing in Brighton, 15, accommodating 270 lodgers, were in the Cumberland Place condemned area. This area has now been almost completely cleared, but as yet no accommodation has been provided for the displaced lodgers on the part of the Corporation. It is perhaps the most unfortunate aspect of such improvement schemes that clearing away the old houses must precede the building of improved dwellings on the site. Three houses, registered to lodge 36 persons, have been registered by one keeper in Carlton Hill, within easy distance of the condemned area, but there is abundant scope for further accommodation for this class of lodgers, and it is most desirable in the interest of the town that it should be provided. In some other large towns such common lodging-houses have been built and maintained by the Local Authority, without any pecuniary loss, and in some instances with a fair percentage return on the money invested.

During 1894 only one summons has been issued against the keeper of a common lodging-house, viz., for failing to keep his premises in a proper state of cleanliness. The summons was withdrawn on payment of costs, on the defendant promising not to offend again.

Water Supply.

During the past year, 24 taps connected with closet cisterns have been removed; 446 new constant water services have been laid on within the Borough; 4 constant services renewed which in the previous year had been cut off; and 284 services have been changed from the intermittent to the constant service.

123 Houses have been reported to the Sanitary Committee during the year as without a proper water supply. Of these 111 have complied with the notices served and 10 are in hand.

Sale of Food and Drugs Act.

Number of samples collected during the year 1894	111
" " adulterated " "	18
" Prosecutions " "	11
" Convictions " "	10
Dismissed	1
Aggregate Amount of Fines	£45 15 0
Analyst's Fees recovered	2 15 6
	£48 10 6
Cost of Samples	£2 10 7½
Cost of Analysis	18 16 0
Inspector's Salary	12 0 0
	33 6 7½
Fines and Analyst's Fees recovered	48 10 6
Profit on working the Act	15 3 10½

The samples collected were :—spirits 12, coffee 6, milk 75, pepper 4, butter 10, lard 4—Total 111.

All the samples of butter, coffee, lard and pepper were genuine.

Of the samples of milk, 15 were adulterated with added water, 8, 20, 15, 20, 6, 12, 18, 18, 6, 6, 7, 7, 25, 15 and 8 per cent. respectively, and one deficient in butter fat 65 per cent. Spirits, 1 whiskey 39½ u.p., 1 Gin 37.6 u.p.

Fines varying from 5s. to £10 were inflicted.

Meat Destroyed During the Year.

	No. of Animals.	No. Condemned by Magistrate.	No. destroyed by arrangement with the Owner.	Total Weight in lbs.
Bullocks (whole carcase) ...	8	2	6	5165
„ (part of carcase)...	12	—	12	429
Sheep (whole carcase) ...	9	—	9	443
Pigs (whole carcase) ...	5	—	5	1043
„ (parts of carcase) ...	2	—	2	61
	36	2	34	7141

The Abattoir.

The Abattoir was formally opened on the 29th June. Inspector Cuckney was appointed Superintendent and Meat Inspector, an additional Inspector being appointed to assist Inspector Cuckney in the superintendence of the Abattoir and the inspection of Slaughter-houses, &c. in the town.

The practical work of slaughtering was only commenced on the 6th November. From that time to the end of the year, the following slaughtering was done in the Public Abattoir and in two of the three Private Slaughter-houses forming part of it :—

Animals Slaughtered in Abattoir.

IN THE PUBLIC SLAUGHTER-HOUSES.						IN THE PRIVATE SLAUGHTER-HOUSES.				
	Beast.	Calves.	Sheep.	Lambs.	Pigs.	Beast.	Calves.	Sheep.	Lambs.	Pigs.
Nov. 6th to 15th (inclusive) ...	--	—	—	—	31	5	—	32	6	--
Nov. 16th to 28th (inclusive) ...	—	—	10	—	38	6	1	25	—	—
Nov. 29th to Dec. 12th (inclusive) ...	2	1	10	—	44	6	1	20	—	—
Dec. 13th to 26th (inclusive) ...	21	—	43	—	76	14	—	42	—	—
	23	1	63	—	188	31	2	119	6	—

In December I reported that the use of the Abattoir is minimised by the present difficulties in connection with unloading cattle at the siding. It is necessary that these should be removed to ensure the full natural development of work at the Abattoir.

Shop Hours Act.

During the past two years the whole of the shops in the borough in which young persons (under 18 years of age) were likely to be employed have been visited, and a copy of an abstract of the requirements of the Act has been served upon the occupiers. In the early part of 1894 there were three complaints received of lads being employed for more than 74 hours per week. Inspector Mills visited the employers and found that in one case the lad, according to his own statement, worked 72 hours per week: in the other two cases the employers acted in ignorance, and at once made arrangements to give the lads a half-holiday to bring the hours within the required time. During the past ten months no complaint has been received. Some difficulty has been experienced in getting the Abstract of the Act affixed; and a decision was obtained in the Court of Queen's Bench that owing to an omission in the Act no penalty is provided for this offence. By an amendment of the Act which has been passed during this Session, a penalty of 40s. may in future be imposed if the Abstract of the Act is not affixed. The total number of young persons found to be employed and coming under the definition of the Act in Brighton is 1,227 males, and 66 females, distributed as follows:—

	MALE.	FEMALE.
Oilmen and Grocers	210	1
Drapers and Hosiers	127	42
Newsagents and Stationers	104	5
Butchers	78	—
Bakers	77	—
Chemists	62	—
Greengrocers	56	—
Brewers and Wine Merchants	46	—
Restaurants and Confectioners	51	9
Hairdressers	28	1
Fishmongers and Poulterers	33	—
Dairymen	45	—
Boot Shops	39	—
Ironmongers	37	—
Coal Dealers	27	—
Tobacconists	19	—
Other Shops	188	8
Total	1227	66

The preceding total represents approximately the number of shops at which young persons (under 18) are employed which will require to be periodically inspected by Inspector Mills. These are out of a total of about 3,000 shops, the remainder of which will not now require to be regularly inspected unless complaints are received.

In my last report I mentioned the fact that the enforcement of this Act had led in several instances to the dismissal of boys under 18, to be replaced by adults. No further instances of this have been discovered. There is no law dealing with the hours of adult shop assistants, and several such persons complaining of the long hours they are compelled to work have been informed that there is at present no legal remedy. The Bill introduced by Sir John Lubbock, to which reference was made in my last report, has now advanced a step further. Should this Bill become law, two-thirds of the shopkeepers engaged in any trade would be able to decide the hours of closing for the whole trade.

Inspections under the Factory and Workshops Act and the Shop Hours Act.

Inspector Mills was appointed special inspector for the purposes of these Acts early in 1893. The two years' work which has been now accomplished is ample justification of the wisdom of detaching a specially skilled inspector for its discharge. It was arranged that Inspector Mills should combine the special inspections for the above purposes with a sanitary inspection of all the shops and workshops visited, thus avoiding the necessity for a separate visit of sanitary inspection. This arrangement has worked efficiently and smoothly. A large number of notices to abate ordinary nuisances (included among those enumerated on page 33) have been served, and the conditions under which work-people work have been in many instances greatly improved.

Factory and Workshops Act.

Under this Act the conditions over which the Local Authority has control are chiefly cleanliness, ventilation and water-closet accommodation.

The trades which have come under supervision are laundries, dressmakers, tailors and bakers.

As required by Sec. 3 of the Factory and Workshops Act, 1891, information has been sent to Mr. Redgrave, H.M. Inspector of Factories, in respect of 143 workshops (including bakehouses) in which children, young persons or women are employed, as compared with 156 in the preceding year. It may be mentioned that this results in H.M. Inspector sending an abstract of the workshop regulations to the premises in question, and subsequently visiting them to ensure that no children, young persons or women are employed beyond the time specified in the Act.

A further list of 252 laundries in Brighton has, at Mr. Redgrave's request, been forwarded to him, in view of their impending inclusion among factories and workshops in the new Government Bill.

Mr. Redgrave, on the other hand, has during 1894 complained to us of eight workshops as regards cleanliness, ventilation or overcrowding, which have all received attention, the results being reported to him.

The following table gives a list of the factories and workshops in Brighton, all of which have been visited during the last two years, many of them at frequent intervals:—

Number of Premises Visited.	Trade.	Number Employed.	
		Males.	Females.
252	Laundries	119	1,664
281	Tailors	443	135
236	Dressmakers and other makers of wearing apparel ...	25	1,292
178	Bakers... ..	—	—
113	Shoemakers	210	8
55	Jewellers and Watchmakers	132	—
60	Builders, Decorators and Plumbers	—	—
51	Smiths, Gasfitters, &c.	218	—
21	Shoeing Smiths	77	—
39	Printers, Lithographers and Engravers	524	52
43	Upholsterers	167	25
29	Coachbuilders	204	—
13	Brewers	320	—
12	Mineral Water Factories	154	—
17	Cabinet Makers	74	—
24	Carvers, Gilders and Frame Makers	68	2
14	Saddlers and Harness Makers	40	—
13	Photographers	36	25
11	Polishers	30	—
4	Paper-bag Makers	31	33
7	Bookbinders	33	35
4	Brush Makers	19	3
3	Dyers	16	12
5	Manufacturing Confectioners	36	20
3	Manufacturing Chemists	44	1
5	Blind Makers	26	2
3	Fondries	102	—
11	Engineers and Machinists	62	—
6	Brassfinishers and Coppersmiths	33	—
6	Stonemasons	58	—
6	Basket Makers	18	—
6	Firewood Factories	36	—
69	Other Trades... ..	229	43
1,600	Railway works	1,850	—

It will be seen that the Railway Works employ 1,850 men; next come the laundries, which employ 1,783 men and women; then dressmakers and other makers of wearing apparel, 1317; tailors, 578; and printers, &c., 576 persons.

Among these industries the largest amount of out-working is done in connection with tailoring, only 2 persons on an average working in one workshop, as compared with an average of 7 in laundries, and of 6 in dressmaking establishments.

C.—BOROUGH SANATORIUM.

As to New Sanatorium.

In 1893 I reported to you on the defects of the present Sanatorium, and during 1894 further steps have been taken towards securing new buildings. The present buildings, composed of wood and galvanized iron, were built out of current rates at a cost of £11,695. They have decayed by lapse of time, though a portion of them can still be utilised for some years. It has now been decided to erect a new administrative building, one division for twenty-two patients, an isolation block for fourteen patients, a discharge block, and a porter's lodge, as an instalment towards the erection of a complete permanent Sanatorium, which is estimated to cost £28,000. The cost of the present instalment is estimated at £15,000.

Two difficulties have delayed the arrival of the question at its present stage—

1. The land on which the Sanatorium is built was purchased from the Harrington Trustees with a restrictive covenant that only one-fourth of it should be built upon, a portion insufficient for the new buildings which it is proposed to erect. This difficulty was eventually overcome by the generosity of the present owner, Mr. Alderman Blaker.
2. The Local Government Board declined to lend money for the proposed new buildings, unless the Corporation gave an undertaking that small-pox would not be treated on the same site as other fever patients. This undertaking has now been given: an undertaking which will involve the purchase or hire of further buildings for the separate treatment of small-pox.

The following table gives a summary as to patients treated in the Borough Sanatorium, during 1894:—

TABLE XVIII.—*Number of Patients during 1894.*

DISEASE.	Remaining in the Hospital on Dec. 31st, 1893.	Admitted during 1894.	Total number treated during 1894.	Number discharged during 1894.	Number who have died in the Hospital during 1894.	Remaining under treat- ment on Dec. 31st, 1894.
Scarlet Fever...	52	227	279	267	3	12
Enteric Fever...	6	11	17	14	2	1
Measles ...	—	1	1	1	—	—
Diphtheria ...	2	54	56	38	9	6
Small Pox ...	—	3	3	3	—	—
Other Diseases	—	6	6	1	5	—
TOTALS ...	60	302	362	324	19	19

The number of patients admitted into the Sanatorium is compared with the corresponding numbers in previous years in the following table:—

TABLE XIX.

DISEASE.	1881 (four months)	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894
Scarlet Fever ... 23		88	56	157	73	102	147	106	297	162	114	276	352	227
Diphtheria ...		1	...	2	3	3	11	10	5	5	12	43	33	54
Typhoid Fever ... 20		5	27	17	12	12	16	48	61	5	4	26	14	11
Measles ...		2	9	3	2	4	11	6	83	9	16	1	4	1
Rötheln (German Measles) ...		1	1	...	...	...	...	...	...	...	...	...	1	1
Small Pox ... 21		16	..	2	1	5	...	...	1	...	...	...	9	3
Erysipelas ...		1	...	...	...	...	...	...	...	...	...	...	2	...
Whooping Cough ...		...	5	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox...		...	...	...	1	...	...	1	...	...	...	...	1	1
Other Diseases ...		...	...	...	...	...	...	1	...	3	6	6	3	4
TOTALS ... 64		114	98	181	92	126	185	172	447	184	152	352	419	302

The number of staff as compared with patients at the date of each meeting of the Sanitary Committee is shown in the following table:—

TABLE XX.

DATE.		NATURE OF ILLNESS.						NUMBER OF STAFF.			Total No. of Patients.	Total No. of Staff.
		Scarlet Fever.	Enteric Fever.	Small Pox.	Diphtheria.	Measles.	Other Diseases.	Matron.	Nurses.	Servants, including Porters, Gardener, Cook, Landresses, Wardmaids and Housemaids.		
January	10th	56	5	—	1	—	—	1	8	13	62	22
"	24th	45	2	1	—	—	—	1	8	14	48	23
February	7th	41	—	—	—	—	—	1	8	14	41	23
"	21st	34	—	—	—	—	—	1	7	13	34	21
March	7th	32	1	—	4	—	—	1	7	12	37	20
"	28th	26	2	—	4	1	—	1	8	13	33	22
April	11th	25	1	—	2	—	—	1	8	13	28	22
"	25th	25	2	—	3	—	—	1	8	13	30	22
May	9th	29	3	—	3	—	—	1	9	13	35	23
"	30th	42	1	—	4	—	—	1	7	13	47	21
June	13th	47	1	—	2	—	—	1	7	13	50	21
"	27th	47	1	—	2	—	—	1	8	13	50	22
July	11th	45	1	—	1	1	1	1	7	14	49	22
"	25th	39	—	—	3	—	1	1	7	14	44	22
August	8th	32	—	—	1	2	1	1	7	14	36	22
"	29th	35	1	—	1	—	—	1	7	14	37	22
September	12th	36	1	—	2	—	—	1	7	14	39	22
"	27th	32	1	—	2	—	—	1	7	11	35	19
October	10th	36	1	—	2	—	—	1	7	11	39	19
"	24th	36	—	—	3	—	—	1	7	12	39	20
November	15th	29	—	—	6	—	—	1	8	12	35	21
"	29th	21	1	—	3	—	—	1	6	12	25	19
December	13th	17	1	—	7	—	—	1	7	12	25	20
"	26th	10	1	—	9	—	—	1	7	12	20	20

The following table gives the number of patients for whom payment was claimed, the amount claimed in each case, and the amount already paid.

TABLE XXI.

By whom Payable.	Number of Patients.	Amount Payable.			Amount already paid.		
		£	s.	d.	£	s.	d.
Brighton Board of Guardians ...	30	123	2	5	123	2	5
Private Patients	15	150	14	4½	101	8	4½
Disinfection, and hire of van for Patients not removed to Sana- torium	—	3	9	0	3	9	0
		277	5	9½	227	19	9½

In 1893 the amount payable was £303 17s. 0½d., in 1892 it was £260 18s. 7d., and in 1891 it was £181 11s. 2½d. At the end of 1891 it was decided to abolish all payments for patients in the general wards, except for parochial patients' for whom the Board of Guardians pay 7s. 6d. per week for children under 10, and 15s. for others. As will be seen by the appended statement this is below cost price.

The items in the following statement have been furnished by Mr. Stevens, the Borough Accountant :—

TABLE XXII.—*Expenditure at Sanatorium.*

	1889.		1890.		1891.		1892.		1893.		1894.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Salaries and Wages—												
Medical Officer	150	0 0	150	0 0	150	0 0	150	0 0	150	0 0	150	0 0
Matron and Steward	160	17 3	134	16 4	59	19 3	64	11 6	59	19 3	59	19 3
Nurses, Porters and Servants	601	3 7	339	12 6	326	18 9	422	12 10	435	9 2	421	6 8
Groceries, Provisions, &c.	1322	9 11	674	6 10	616	14 11	886	5 5	1092	17 6	821	10 4
Medical Sundries and Disinfectants	138	6 4	25	4 9	14	9 5	52	11 1	52	2 4	42	10 10
Drapery Goods (including Uniforms)	238	17 3	37	15 11	43	3 6	70	2 6	48	8 4	67	15 6
Gas, Coal, Coke, &c.	424	14 1	242	3 3	228	15 1	300	8 9	339	14 4	323	19 5
Rates and Taxes (including Water Rate)	35	5 0	35	6 4	35	5 0	37	5 0	37	5 0	38	10 0
Fire and Boiler Insurance	16	11 6	16	11 6	18	13 2	17	11 6	17	11 6	17	11 6
Printing, Stationery and Advertising	37	13 10	27	19 11	15	3 11	15	16 3	12	9 7	15	1 1
Hose, Hydrants and Fitting	—	—	—	—	41	0 0	—	—	—	—	—	—
Repairs, &c.	115	15 6	138	4 1	100	6 1	140	17 0	70	10 0	59	1 11
Miscellaneous	113	3 1	44	8 8	51	0 4	85	11 2	126	2 4	127	9 3
Fees to Surgeons	2	2 0	2	2 0	8	8 0	6	6 0	2	2 0	2	2 0
Hire of Institution Nurses	—	—	20	0 0	3	4 6	—	—	37	1 1	15	7 6
Gardener, Garden, Sundries and Manure	—	—	—	—	—	—	40	14 10	44	10 10	94	18 0
Total Expenditure in the Year	3356	19 4	1888	12 1	1713	1 11	2290	13 10	2526	3 3	2255	1 3
No. of Patients in the Year	447		152		184		352		419		302	
Total No. of Weeks spent by above Patients in the Sanatorium	2439		1170		1095		2164		3031		2119	
Total Cost per week for each Patient, including all the Working Expenses	s. d. 27 6		s. d. 34 6		s. d. 29 3		s. d. 21 2		s. d. 16 8		s. d. 21 3	

No deduction is made in the above statement for amounts received each year for paying patients. It will be noted that the average weekly cost, including the proportional share of all current expenses of the year, was 21s. 3d. in 1894, as compared with 16s. 8d. in 1893, and with 21s. 2d. in 1892. These three amounts are much smaller than in preceding years, and there is no doubt that a very considerable economy in administration has been secured.

Other things being equal, the larger the number of patients suffering from a given disease are under treatment, the less is the cost per head. In 1894, when the number of patients as compared with 1893 was as 72 : 100, the cost per patient was as 100 : 78. The administrative reasons for this are fairly obvious; but I may mention as an additional reason, the fact that where single cases of an infectious disease are under treatment, it occasionally happens that the number of nurses is double that of patients, while the same staff would suffice for a dozen patients; and the expenses of firing, &c., are identical in the two instances.

In addition to the work in connection with the treatment of patients at the Sanatorium, the high-pressure steam disinfecting apparatus has been used largely for disinfecting articles from various parts of the town. The following is the list for the year:—

Articles Disinfected during 1894.

255	Mattresses	
264	Palliassees	
150	Beds	
576	Pillows and Bolsters	
464	Blankets	
215	Sheets and Counterpanes	
13	Entire Contents of Rooms (not classified)	
247	Dresses and Coats	
607	Other Articles of Wearing Apparel	
157	Carpets	
709	Other Articles	
39	Boxes, &c., of Wearing Apparel (Articles not classified), and a large number of minor articles.	
Number of Journeys with Ambulance to Sanatorium	...	268
"	" Hospitals	43
"	Van to Sanatorium with Infected Articles	264
"	Van from Sanatorium to return Disinfected Articles	239
		814



